WISCONSIN WOOD

MARKETING BULLETIN

WISCONSIN DEPT. OF NATURAL RESOURCES

Published by Wisconsin Department of Natural Resources, Madison, WI 53711 **May/June 2004**

WOOD MARKETING BULLETIN

The Wisconsin DNR publishes the "Wisconsin Wood" marketing bulletin every two months. It serves the timber producing and wood using industries of Wisconsin by listing items: For sale - forest products, equipment and services, wanted - forest products, equipment and services; employment opportunities. There is no charge for the Bulletin or inserting items in it. Only items deemed appropriate to the timber producing and wood processing industries will be listed. Also the Bulletin will feature forest products utilization and marketing news, safety notes, coming events, new literature, tips to the industry, and listing or employment wanted or positions that are available.

If you know of someone who would like to be on the Bulletin mailing list, please ask them to send their name, address and zip code to the return address on the back page. Also, if you have items to list, send in the form or write a letter to the return address on the back page. Repeat listing of items requires a written request each time the item is to be repeated.

Published by Wisconsin Department of Natural Resources, Madison, WI 53711

WHAT DO YOU THINK ABOUT CERTIFIED FOREST PRODUCTS?

Study Results from Wisconsin's Sawmills

By Scott Bowe and Steve Hubbard

Background – Many of you working within the forest industry have come across the issue of forest certification. Simply put, certified forests are forest lands governed by specific management criteria. The management of these forest lands is verified by outside parties. Certification systems available in the Lake States such as the Sustainable Forestry Initiative (SFI), Forest Stewardship Council (FSC), and the International Standards Organization (ISO) have been around for about a decade. Gong back further, the American Tree Farm System (ATFS), which is a type of certification system, has existed since 1941. What all of these systems have in common are forest management guidelines designed to ensure the sustainable management of forest lands.

A second aspect of forest certification involves the tracking of logs harvested from certified forests, processing at the pulp mill or sawmill, and production into value added products such as paper, lumber, or furniture. This tracking process is called a chain-of-custody, which follows the raw material from the forest to the final product. These wood products can be marked with a proprietary logo called a "green label" or "eco-label" which tells the consumer that the product came from a well-managed forest (Figure 1). Alone or in combination, forest certification and chain of custody certification are designed to provide verified assurances of responsible forest stewardship and responsible wood utilization.

Most certification systems don't come for free. Fees are charged to forestland owners to have their management plans and forest lands inspected. Fees are charged to forestland owners to have their management plans and forest lands inspected. Fees are charged to wood products manufacturers to have their production facilities inspected and certified. In addition to these fees, a company may have to invest money to improve its production, management, or record keeping systems to meet the certification criteria.

What benefit would I as a sawmiller get from becoming certified? From the beginning, some certification systems have promised price premiums for logs and value-added products that come from certified forests. Some certification systems have promised improved company image and better public relations, and some certifications systems have promised increased market share by attracting environmentally conscious customers. Many of these proposed benefits have not come true. In addition, the various certification systems are complex, which has resulted in a great deal of confusion among forestland owners, forest products industry, and end consumers.

One question you might ask is how many people know about certified wood products? A study recently completed by Bob Smith and Stephanie Gomon from Virginia Tech University tracked consumers buying hardwood lumber at various lumber yards. These consumers had the option of buying certified or non-certified lumber. Only percent of the consumers in the study knew that certified forest products related back to an environmental standard. More than 80 percent thought that the term "certified" was related to issues of quality. The vast majority of end consumers are not directly involved in forest management, so their lack of understanding of forest certification or certified forest products is not surprising.

Wisconsin Study – In the spring of 2003, round-wood using mills in Wisconsin (a group including sawmills, veneer mills, chip mills, pulp mills, post & pole mills, and particleboard mills) were contacted in a mail survey to identify their real world experiences with certified forest products. This topic must have struck a cord with the industry since 239 mills, more than 70 percent of the mills surveyed, took the time to respond. The project also came at the right time since the Wisconsin Department of Natural Resources is currently looking into certifying state, county, and Managed Forest Law Lands. Some of the industry's perceptions of certified forest products may surprise you.

Of the responding mills, only 13 said that they sold certified forest products (about 5 percent of the respondents). These companies were involved with the SFI or FSC certification systems. Of the mills that did not sell certified forest products, 58 percent said that they were "not at all

familiar" with certified forest products. Only 11 percent said that they were "very familiar" with certified forest products (Figure 2).

It is understandable that the vast majority of end consumers (about 99 percent) were not familiar with certified forest products; however, it was surprising that the awareness among the forest products industry was not higher.

When asked to respond to the following statement, "Fundamentally, certified forest products are a good ideal," 22 percent said they did not agree, 35 percent were neutral, and nearly 44 percent agreed that fundamentally, certification was a good idea.

The reasons most of Wisconsin's primary companies have to become certified are shown in Figure 3. The most common reasons for not certifying were a lack of awareness and a lack of demand for certified products. Awareness and demand are two major hurdles for all of the forest product certification systems. In addition, 78 percent of the mills agreed that their customers were more concerned with price than about environmentally certified wood.

If we examine the 13 companies that were producing certified forest products in Wisconsin, we can find out if certification has benefited their bottom line. One proposed advantage put forth by some of the certification systems is that certified companies will gain market share since more and more customers will want to buy certified forest products. When these 13 companies were asked if certification has given them more customers, 46 percent disagreed, 23 percent were neutral, while 31 percent had some level of agreement. Roughly 70 percent of the certified mills felt that certification did not give them market share or sales volume advantages.

The biggest question on everyone's mind is if certified companies can charge more money for their certified forest products. The results of the study found that 62 percent of these companies strongly disagreed. In other words, they could not charge a price premium for certified forest products. Only one company reported that it was able to charge more money for its certified products.

Recall that a certified forest product and a non-certified forest product are physically identical. The only way you can tell them apart is if they have a green label or if they have chain-of-custody documentation. Consider the following question, "Is the general public willing to pay more for certified forest products?" Studies from across the nation have found that a small segment of consumers claim that they will pay between 5 and 14 percent more for a certified forest product. Other studies have found that when the time comes to take out your wallet and pay more for certified forest products, the percentage actually willing to pay more goes down. Recall the Virginia study found that only 1 percent of the general public is aware of certified forest products. The second strategy is to push the product onto the wholesaler or retailer and get the sales people to push product sales onto the end consumer. This strategy has been somewhat more effective. Some municipalities and architects are starting to specify certified products for public works projects and on the buildings that they design. The push strategy has also been the case with large corporations such as Home Depot and Time Warner. In efforts to maintain a positive public image and to deflect criticism from various environmental groups, these large corporations have agreed to sell or utilize certified forest products when available. The demand generated from policy decisions can certainly influence how our forest lands will be managed in the future.

Conclusions – Proper forest management is in the best interest of a sustainable and profitable industry in the Lake States. Forest certification is one tool to help ensure sustainable forests; yet, the awareness of forest certification by the general public and the forest products industry is low. As a result, markets for certified forest products have remained small. Demand for certified forest products from large corporations may ultimately push certification onto public lands and increase customer awareness. If forest certification and certified forest products are going to be used as a marketing tool in the Lake States, these issues of awareness and demand must be addressed.

Scott Bowe is an assistant professor at the University of Wisconsin Madison and Steve is an economics forestry specialist at the Wisconsin DNR Division of Forestry. If you have any questions or would like more information on the complete study, please call Scott at (608) 265-5849 or e-mail him at sbowe@wisc.edu.

Source: *The Log*, February 2004

REINVEST IN YOUR FUTURE TO SURVIVE

Like many other sectors of the secondary woodworking market, 2003 remained to be a difficult year for members of the Wood Products Manufacturers Association (WPMA). According to Phillip Bibeau, executive director of the WPMA, production was down due to an overall slowdown in the economy. Profits were squeezed and shipments wee down 10 percent for the year; although on a high note, they did pick up later in the year.

According to Bibeau's predictions for this year, businesses will experience a slow and steady growth and 2005 will see more of the same. The reason, he says, is that companies doing business with Asia are starting to get dissatisfied and running into problems such as product coming in with rejection factors of 10 to 15 percent when the container is opened.

"A conversation I had with one manufacturer tells it all. Someone from that company had to visually inspect a container load of parts. When the job was complete, the manufacturer was not reimbursed for the handling or the extra time spent for inspection but instead, issued a credit for their next order," he explains. "Thirty percent of the product in the container was bad due to moisture problems, and to top it off, deliveries promised to customers were late and a penalty was imposed."

Which poses the question, "What is the cost of doing business with China?" he asks.

Examining cash flow, tying up capital into warehousing parts and knowing what is the turn on that particular item are key factors are affecting wood product manufacturers.

"Like everyone, the global economy and a lack of skilled labor force are probably the two biggest challenges facing our market," Bibeau says.

Overcoming these challenges are central to continued survival in an already volatile marketplace. Bibeau suggests reinvesting in equipment, training and looking at your manufacturing processes in an effort to offer the best possible product in the most efficient manner.

"Companies need to focus on what they do best, and they need to look at their process and deliver what the customer wants and when they want it," he says.

It's really a matter of customer service and the efforts required to maintain the level of service that will keep your customers.

"The companies that are reinvesting in training, equipment, new producer designs,

a focus on lean manufacturing and meeting or exceeding their customers expectations will continue to do well," he says. "The manufacturers who haven't won't succeed. This principle is crucial to all market segments whether it's the wood market, metals or electronics. As the old adage says, "If you got it on price, you can lose it on price.'"

In the meantime, the WPMA is helping its members to maintain a level of success by helping companies reduce operating costs with offered programs focusing on insurance and workplace safety.

Being visible on the trade show front is still key to the WPMA and its members. With booth space at the New England Industrial Woodworking Expo in Hartford, Conn.' IWF 2004 in Atlanta, Ga.' And the Mid America Industrial Woodworking Expo in Columbus, Ohio, the association will still be focusing on marketing to other businesses.

Competing on a global marketplace and finding solutions to problems that all businesses face will be the focus for the WPMA's annual fall meeting. Held Oct. 6-9, in Lennox, Mass., all members and nonmembers alike are encouraged to attend. For more information, contact the WPMA for details.

Source: *Wood Digest*, April 2004.

MASTER LOGGER COMMITTED TO MAKING A BETTER INDUSTRY

By Mike Monte

Curt Wester lives and logs in the far northwest corner of Wisconsin. He likes where he lives and loves to work in the woods. He says he likes to watch the sunrise on the job and the sunset too. When visited by *The Northern Logger*, Wester was working on a job about then miles west of Solon Springs, where he attended school. He was born and raised, 40 years ago, in Bennet Falls, and lives about 15 miles from there in Lake Nebagamon.

Wester learned to work in the two-family businesses, a farm and a garage, both places to build good work ethic. He started working for the Douglas County, Forestry department at an age 17, was exposed to logging and stayed there for four years. Then he attended tech school, learning about diesels and gaining other mechanical skills. After graduation he took a job at a Ford dealership as a mechanic, but he missed the woods.

He bought a skidder in 1990, and worked evenings and weekends logging. Depending on your perspective, this was his downfall. Working without a time clock and doing it in the great outdoors was too strong a calling, and he quit the Ford dealership and became a full-time logger in 1992.

He started running a Franklin 132 skidder with a grapple and a winch for rough ground, and piled his wood with the blade. Sometimes his friend, Terry Priem, would bring out his slasher and cut and pile the wood for him. He, in turn, would help Priem log some of his tracts. After finishing the sale shown in the photographs accompanying this article, he moved his machinery to one of Priem's logging sites that needed immediate attention.

Wester does a great deal of his logging on Douglas County forests, but also works private and state timber sales. Douglas and Bayfield counties are very rural and heavily wooded with aspen, pine, balsam, spruce and birch. Much of the wood, according to Wester, is over-age and low-grade.

He markets aspen to both Future Wood and Louisiana Pacific at Hayward, Wisconsin, and to SAPPI in Clocquet, Minnesota. Birch goes to Park Falls, Balsam to the International Paper wood yard in Superior, Wisconsin, and bolts are sold locally to Wentworth Lumber, located in Wentworth, Wisconsin, or to a mill in Clocquet, Minnesota. Chips are hauled to Georgia-Pacific in Duluth.

Wester is an intense guy. He was in charge of running a Log-a-Load event at Iron River, Wisconsin last October, and his shirt-tail didn't touch his butt till the last event was over. The event ran like clockwork.

He has, in recent years, had a change in his life, making the transition from a run-of-the-mill logger to a logger-activist. He is chairman of the Northwest Chapter of the Wisconsin Professional Logger's Association (WPLA), and has done the work and taken the time to be certified as a Master Logger (MLC). Wester is quite passionate about his involvement in WPLA. When you talk to him, you know that doing a poor job just isn't in him. And as he says, "The public will no longer tolerate poor work by loggers."

These days, Wester is running a Franklin 170 with a grapple and winch, a Hydro-Ax feller-buncher, and a Hahn Pulp Logger II processor. He runs older machinery, willing to make repairs once in awhile rather than meet big monthly payments. His mechanical background is a big asset. He says he thinks he is money ahead, balancing the cost of new machinery against the cost or repairs and down-time.

Surprisingly, Wester has no employees. He hasn't employed anyone for the past eight years, and had no plans to do so in the future. This, of course, would be impossible if there were payments due on newer equipment.

Given this, the next logical question is, "How do you get a big timer sale cut in the allotted time by yourself?" His answer is contractual agreements. He explains that there are people who have larger feller-bunchers than his Hydro-Ax, who do strictly contract cutting. He believes he's ahead to let this Hydro-Ax sit idle on some jobs, and put one of these cutting operators to work.

He points out that his Hydro-Ax is a small machine with a shear, not a saw, and if there is a need for clean butts or large timber that is too big for the shear, he will contract the cutting or fell it by hand. But, his Hydro-Ax is a very good tool, he says, when cutting small stems of pulpwood quality or working plantation thinnings where the width of the machine is critical.

His relationship with Terry Priem, of Solon springs, is also beneficial to both parties. Wester will contract part of the timber out from time to time to Priem who has two Trelan chippers.

The end benefit for Wester with all this contracting is that he doesn't have to make paydays every week, and he avoids paying today's the extremely high worker's compensation premiums. Priem, of course, has extra work for his machinery. According to Wester, this has also helped him take the time to do volunteer work for the Wisconsin Professional Logger's Association. He says that he and Priem have an agreement whereby Wester can take off and do association business, while Priem takes care of any problems on the job.

The day *The Northern Logger* visited, a chipper was running and Wester was skidding into the chipper. This particular job is loaded with over-age aspen and lots of small balsam. When the chip van was full, Wester started the Hahn and began to process the some large aspen stems. The bolts were separated, but much of the aspen had white rot in the centers and as sorted for pulpwood. According to Wester, there are probably slashers that are faster at cutting up stems, but none make the sorting as easy as the Hahn.

When asked what he considered the biggest problems facing him and other

loggers, Wester didn't have to take time to think, the answers just came rolling out.

High stumpage was number one on his list. He things that many in the industry are paying far too much for the wood they harvest. He says, "We are on the verge of our industry pricing itself out of the global market. Our own mills bid against us!"

The practice of mills bidding against their own raw material suppliers is a gripe common in the Northwoods of Wisconsin and Michigan. Often the stumpage paid by the mills will almost equal the price paid to producers at the gate. Loggers too, says Wester, are their own enemy. If there is a price increase, most loggers will give it back in stumpage the next time they bid.

Moving to another topic, Wester said that the costs all seem to be shouldered by loggers. He talked of the cost of Best Management Practices, seasonal shutdowns, and having to make allowances for recreation activities, like snowmobiling. Wester says loggers built the roads that make the snowmobile trails, and now they are off limits to those same loggers.

Insurance costs were mentioned, as well as the high price of fuel, which, according to Wester, is not compensated for in a price increase at the mill. "We are losing our motivation," he says, "we love what we do, but work too hard for our money and then question why we do it."

Wester says that while loggers can sell wood right now, the margins are too thin. He says that aspen stumpage can go as high as $35 per cord, and more at times, but the price delivered to Hayward is only $67. The arithmetic is plain enough with those figures. $32 is left over to cut, skid, haul, put in roads and purchase insurance. Wester says that $15 per cord would be more realistic, and thinks that a logger should cut and skid for at least $35-$40 per cord.

Wester thinks that most loggers are doing a good job, but that doesn't really matter if they can't make a good living. He concedes that mills also have to make a profit, and they have to compete globally. He thinks that everyone in the industry has to pull together to compete in a worldwide market.

It also irks Wester that large operators can get a significantly higher price for a cord of wood than a small buy, and thinks that someone getting paid significantly more because of the volume they produce, tilts the playing field too much against the small operator. He believes that production bonuses would be beneficial to everyone, and would help keep the price of stumpage down.

Wester is hopeful that the WPLA can improve a number of things in the industry. He says that those who fight to improve the lot of the logger may not receive any thanks from those not involved – but who still benefit from the organization. He adds that his won't stop him or others from working to make improvements in the logging industry.

Curt Wester believes that the Master Logger Certification program may eventually reward those who participate, and he may be right, if the trend toward green lumber, paper and other forest products continues, which it seems likely to do.

As Wester says, using a Master Logger is the only good way to certify wood cut on private lands. He thinks that if everybody is on the same page, and everybody is treated the same at the selling point, the logging industry will improve. In return, the mills receive wood from loggers who are certified. This could help make the "Green Revolution" work for loggers and pulp and lumber mills. Curt Wester and a number of his contemporaries are counting on it.

Source: *The Northern Logger Processor*, April 2004.

FEDS FAST-TRACK HEALTHY FORESTS INITIATIVE

By Joe Dysart

A number of federal agencies have decided to fast-track the healthy Forests Initiative, slashing through significant reams of red tape in an effort to reduce the build-up of wild-fire fuel that pervades the nations forest system. The move comes during a turbulent time in the forestry industry, in which the Canadian softwood industry scored a victory against the U.S. in the World Trade Organization, and new home sales saw double-digit gains over a comparable period last year.

Specifically, three major players behind the Healthy Forests Initiative – the Departments of Agriculture, Interior and Commerce – have decided to bypass regulations requiring outside approval on decisions impacting endangered species.

Essentially, instead of seeking outside approval from the Interior Department's U.S. Fish and Wildlife Service or the Commerce Departments NOAA Fisheries Service on HFI decisions potentially impacting endangered species, the three federal agencies have decided to use their own, internal biologists to make that judgment call.

The HFI was launched by the Bush Administration in August 2002, after many of the nation's forests were ravaged by a particularly brutal wildfire season. The impetus behind the HFI is to minimize and/or eliminate bureaucratic logjams that impede the reduction of wildfire fuels throughout the country's federal forest and rangeland system.

"The long-term solution to decreasing the impact of catastrophic wildfires is to more effectively reduce hazardous fuel levels and turn forests and rangelands to healthier conditions," says Ann M. Veneman, USDA secretary. "By improving the health of our forests, we can improve wildlife habitat."

While USDA biologists currently do not have the formal training necessary to make judgment calls on issues impacting endangered species. Veneman says those biologists will receive that training. In addition, the U.S. Fish and Wildlife Service will continue to monitor implementation of an endangered species sensitive HFI decision, she says.

"The agreements we are announcing are the final step in implementing these new regulations, which will allow land managers to better protect communities and wildlife habitat from catastrophic fires," adds Gale Norton, secretary of the Department of the Interior. "At the same time, they will free our endangered species biologists from routine and often duplicative, informal consultations, and allow them to focus on proposed actions that are likely to have a more significant impact on listed species."

The three agencies say the new fast-track review process will be critical to restoring forests to health while simultaneously preventing catastrophic fires. Currently, an estimated 190 million acres of federal forests and rangelands – an area twice the size of California – is at high risk to wildfire, according to the three agencies. Years of natural fuels build-up, combined with drought conditions, insect infestation and disease make these forests and rangelands vulnerable to intense and environmentally destructive fires.

"We've worked closely with USDA and DOI to make sure this new process will help eliminate the chances of harming threatened or endangered species," says Donald L. Evans, secretary of the U.S. Department of Commerce. "This proposed approach will allow our agencies to focus

resources on those consultations that will have the greatest benefit for the species."

HFI project implementations currently subject to the new fast-tracking include prescribed fire, mechanical fuels treatments, emergency stabilization, burned area rehabilitation, road maintenance and operation activities, ecosystem restoration and culvert replacement actions.

In a related development, the USDA and the Department of Interior recently released a field guide that offers local government officials a rubber-meets-the-road tool kit for implementing the HFI on the local level. "The field guide explains all the tools available to process urgently needed treatment projects that will help avoid catastrophic wildfires and save lives and property while complying with environmental laws," Norton says.

The guide is also designed to help states, tribes and local communities qualify local forests and rangelands for enhanced National Environmental policy Act review, as long s those lands can be designated as either at-risk communities in the wild-land/urban interface, high-risk municipal watersheds; areas that provide habitats for threatened and endangered species; and areas that are susceptible to insect infestation or disease epidemics.

"The Bush Administration is committed to protecting communities, wildlife habitats and municipal watersheds from catastrophic fires," Veneman says. "This guide will help field managers conduct fuels reduction and restoration projects in a more effective and timely process."

Meanwhile, on the international scene, U.S. softwood lumber interests recently suffered a blow when the World Trade Organization ruled that the U.S. failed to follow international trade rules regarding U.S. imports of Canadian softwood and violated fair trade practices.

The trade dispute, which ha been ongoing between the two countries for year, flared anew in 2002, when punitive duties of up to 27 percent on Canadian softwood lumber imports were imposed by the U.S. "The WTO decision that the U.S. ITC ruling is inconsistent with its international trade obligations supports the conclusion that the antidumping and countervailing duties should be terminated," says Susan Petniunas, a spokesperson for American Consumers for Affordable Homes. "Nearly $2 billion on duties collected over the past 18 months should be returned to Canada, and the Department of Commerce should move to tree lumber trade between our two countries."

U.S. softwood producers continue to maintain that low stumpage fees in Canada essentially represent subsidization of the Canadian timber industry by the Canadian government.

Finally, in a more upbeat development, sales of new, single-family homes increased 5.8 percent in February over the prior month to a seasonally adjusted annual rate of 1.163 million, according to the U.S. Commerce Department. The surge represented a vigorous 24.4 percent increase over sales in February 2003, and a 7.2 percent increase above the average for all of 2003.

"Today's report shows that housing demand remains very strong," says Bobby Rayburn, president of the National Association of Home Builders. "And with mortgage rates in March even lower, we expect robust sales to continue." Agrees David Seiders, HAHB chief economist: Favorable factors – low mortgage rates, healthy growth income and solid house price appreciation – continue to invigorate demand.

The gains in new, single-family home sales were the highest in the West, which posted a 28.5 percent gain, and in the Northeast, which racked up a 12 percent increase. Unfortunately, sales in the South fell 1.2 percent in February, as compared to the prior monthly, and plummeted 106 percent in the Midwest. "The supply-demand balance in the new home market remains very, very healthy," Seiders says. Builders are just keeping pace with demand without overextending production."

Source: *Forest Products Equipment*, May 2004

AF&PA CAPACITY SURVEY SHOWS CONTINUED ABSENCE OF GROWTH

Reconfirming patterns that have now been in evidence for several years, AF&PA's 44th annual Survey of Paper, Paperboard and Pulp Capacity points to a continued absence of growth. Specifically, it indicates that U.S. paper and paperboard capacity declined 0.4% in 2003, following reductions of 1.9% in 2001 and 1.3% in 2002. It further suggests that capacity will remain approximately unchanged during the 2004-06 projection period.

The recent declines and the lack of growth during the projection period constitute a marked change from the past. In the 1980s and 1990s, for instance, U.S. paper and paperboard capacity rose at respective average annual rates of 2.1% and 2.2%.

Heightened foreign competition, the maturing of domestic markets, and competition from plastics and the electronic media are some of the factors that may have contributed to the absence of capacity growth.

Paper Grades - Newsprint capacity fell by 1.3% in 2003 to 6.9 million tons. Nevertheless, capacity in 2003 measured 2.4%, or almost 165,000 tons, higher than was projected in last year's Survey. The higher capacity level reflects mainly the restart of an idled mill that formerly produced uncoated groundwood.

Newsprint capacity is scheduled to decline another 2.8% to 6.75 million tons in 2004. At that point, it will have fallen by almost 10% from its peak level in 1997 and will be at its lowest level since 1989. After 2004, capacity is scheduled to remain relatively unchanged.

After declining by 7.2% - more than 2 million tons – between 2000 and 2002, printing-writing paper capacity declined another 0.6% or 174,000 tons in 2003 to 27.1 million tons. Moreover, the grade mix also changed. In 2003, capacities for coated free sheet, coated groundwood and uncoated groundwood declined, while uncoated free sheet rose slightly. Total printing-writing capacity is scheduled to rise by a total of 1.5% over the 2004-2006 projection period.

Since 2000, among the four major grades of printing-writing capacity is scheduled to rise by a total of 1.5% over the 2004-2006 projection period.

Since 2000, among the four major grades of printing-writing paper, only coated groundwood has registered an increase in capacity, rising by 2.6%. All the other major grades experienced significant declines between 2000 and 2003.

Uncoated groundwood capacity declined by about 144,000 tons, or by 7.1%, in 2003 to less than 1.9 million tons. It is now almost 20% below its 1996 peak and approximates its 1993 level. Capacity to produce this grade is expected to rise by 2.3% in 2004 and then remain essentially unchanged in 2005 and 2006.

A major swing from uncoated groundwood capacity to newsprint accounts for most of the drop in uncoated groundwood capacity in 2003. Extremely low domestic operating rates for uncoated groundwood may have prompted the swing, which partially resulted from last

year's surge in U.S. uncoated groundwood imports.

Coated groundwood capacity, at nearly 5.0 million tons, declined by 1.3% last year from its all-time high in 2002. Nevertheless, the capacity level for 2003 was nearly 2.4% greater than anticipated in last year's Survey. Capacity is projected to remain essentially unchanged at about 5.0 million tons through 2006.
Actual capacity in 2003 was higher than had been anticipated last year in large part because producers swung some capacity previously dedicated to coated free sheet production to coated groundwood. The swing may have been induced by the strengthening of the coated groundwood market relative to that of coated free sheet in 2003.

At 4.8 million tons, coated free sheet capacity in 2003 was down 4.2% from the previous year. Capacity is now 14.2% below its 2000 peak and at its lowest level since 1993.

Despite the fact that several producers increased capacity last year, this was more than offset by the combined negative impact of machine shutdowns and grade swings to coated groundwood, as discussed above. A decline in U.S. coated free sheet demand, combined with an increase in imports, led to depressed U.S. shipments and operating rates, which presumably encouraged the capacity shutdowns and grade swings.

Capacity is scheduled to rise at 2.1% annually during the forecast period.

Uncoated free sheet capacity was the only printing-writing grade to show an increase in this year's Survey between 2002 and 2003, rising by more than 255,000 tons, or 1.9%, to about 13.9 million tons. The increase resulted from the net impact of a multitude of individual producer changes, including debottlenecking projects, ramping up of a new paper machine that started up in the second half of 2002, machine shutdowns and grade swings in and out of uncoated free sheet. Included in the Survey estimates, are over 300,000 tons of capacity that were indefinitely idled during late 2003 or beyond.

Even with the increase in capacity in 2003, uncoated free sheet capacity was still nearly 9% below its peak in 2000 and, aside from last year, was at its lowest level since 1993. Moreover, capacity is scheduled to remain essentially unchanged through the survey period. This would leave anticipated capacity in 2005 some 205,000 tons, or 1.5%, below the level anticipated in last year'' survey. The change presumably reflects the weak market conditions of last year.

Unbleached kraft paper capacity declined 1.2% in 2003, to 1.8 million tons. Capacity to produce these grades is projected to decline an additional 3.5% in 2004 and then rise 1.7% in 2005. The changes reflect the net impact of several factors including the shutting down of two machines – one in 2003 and the other in 2004 and the shifting of a machine to kraft paper that had previously produced linerboard.

Unbleached kraft paper capacity is projected to remain essentially unchanged in 2006.

Bleached kraft paper capacity rose 1.6% in 2003 and is expected to edge up 0.7% in 2004 to 383,000 tons. The increases mainly reflect the shifting in and out of capacity from other grades. Bleached kraft paper capacity is expected to remain nearly stable in 2005 and 2006, according to producer plans.

Tissue paper is currently one of the more dynamic sectors of the paper industry in terms of capacity changes. U.S. capacity to produce tissue paper rose 1.6% in 2003 to 8.1 million tons and is slated to increase 1.1% in 2004, 2.6% in 2005, and a fractional 0.1% in 2006. These capacity changes reflect the net impact of several developments. One new tissue paper machine came on line in 2003, and several machines were permanently shut. Four new tissue paper machines are scheduled to come on line in 2004. Finally, a new tissue paper machine is expected to start up during early 2005.

Even with these new machines, the growth of tissue paper capacity is projected to average 1.3% during the three-year period from 2004 through 2006 as compared with 2.1% average annual growth during the 1990's.

Paperboard Grades – At 25.5 million tons, linerboard capacity showed no change in 2003 and is projected to remain essentially flat during the next three years. No new machines were brought on line in 2003 and none are planned. However, a linerboard machine previously categorized as permanently closed will be restarted in 2004, while another machine previously devoted to the production of kraft linerboard will be shifted to unbleached kraft paper.

Corrugating Medium capacity declined 2.1% in 2003 and is slated to be down another 1.5% in 2004. These declines reflect the permanent shutdown of a recycled medium machine during the fourth quarter of 2003, and swings in and out of other containerboard grades. Medium capacity is expected to edge up by 0.3% in 2005 and 0.4% in 2006.

Bleached board capacity (folding boxboard, milk carton & food service, and other) rose 1.7% in 2003 to 5.8 million tons. The increase reflected capacity swings from other grades and efficiency improvements. No new machines came on line in 2003 and none are anticipated during the next three years. Domestic capacity to produce bleached board is, therefore, projected to remain essentially unchanged through 2006.

With regard to the major sub-grades, the Survey shows milk carton and food service bleached board capacity declining by 2.2% in 2004, offsetting a 2.1% increase in 2003. Very little change in milk carton and food service capacity is expected in 2005 or 2006. Bleached folding board capacity rose 3.6% in 2003 and is slated to climb 0.8% in 2004. No significant changes in capacity to produce these grades are anticipated beyond 2004.

U.S. capacity to produce recycled paperboad (excluding recycled containerboard) declined 2.0% in 2003 and is expected to contract an additional 1.9% in 2004. These declines are attributable to the closure of eight recycled paperboard machines in2003 and the shutdown of an additional facility in early 2004. Recycled paperboard capacity is slated to rise 0.5% n 2005 and to hold approximately stable in 2006, according to producer plans reported in the Survey. Despite several mill closures, recycled paperboard capacity has held fairly stable over the past ten years, contracting t an average annual rate of 0.1% from 1993 through 2003.

Recycled folding boxboard capacity, which accounts for about 36% of the recycled paperboard category, declined 3.4% in 2003 and is slated to decline another 4.4% in 2004 before leveling off. Gypsum wallboard facing capacity climbed 2.2% in 2003. It is expected to contract 0.5% in 2004, rise 1.2% in 2005 and hold stable in 2006.

Capacity to produce unbleached kraft folding boxboard declined by 1.2% in 2005 and hold stable in 2006.

Capacity to produce unbleached kraft folding boxboard declined by 1.2% in 2003 to 2.4 million tons but is projected to remain essentially level during the three-year projection period ending in 2006. This flat performance compares with 5.1% average annual growth during the ten-year period ending in 2003.

Market Pulp – Market wood pulp capacity in this year's Survey totaled about 10.6 million tons in 2003, about 84,000 tons more than the 2002 l3evel. Dissolving pulp capacity is estimated at 998,000 tons for 2003, representing a drop of 178,000 tons from the 2003 level reflecting the closure of a large facility in the southern U.S. Bleached softwood sulfate market pulp capacity increased 130,000 tons in 2003 to total 5.9 million tons. Bleached hardwood sulfate market pulp capacity increased 136,000 tons in 2003 to total 3.3 million tons.

Total market pulp capacity is expected to decline by about 285,000 tons through 2006. Major changes in sub-grades include substantial declines in dissolving pulp capacity. By 2006, dissolving pulp capacity is expected to total 859,000 tons. Bleached softwood sulfate market pulp capacity is expected to grow 112,000 tons over the next three years and is expected to total 6.0 million tons by 2006. Bleached hardwood sulfate market pulp capacity is expected to fall by 260,000 tons during this period and reach 3.0 million tons by 2006. Total chemical paper grade market pulp is expected to reach 9.5 million tons b 2006, a 146,000 ton reduction relative to 2003.

Source: *PaperAge*, March 2004

EARTH DAY IN CENTRAL PARK

New York City's famed Central Park was the setting for a major, WPN-organized Earth Day event that placed the national media spotlight on sustainability, active management and other forest issues.

Kicking off the official 35th annual Earth Day, Dr. Patrick Moore conducted a satellite media tour from one of the park's forested areas on the morning of April 22. More than 20 interviews were lined up with national networks and their affiliates across the U.S., including Houson, Boston and Denver. This followed a pre-Earth Day blitz of radio interviews and an advanced segment on the Radio America Network, which reaches more than 500,000 listeners through 110 affiliate stations.

To further extend the reach of forest messages, WPN's Wood Information Bureau secured a number of interviews for Chuck Leavell, keyboardist for the Rolling Stones, private tree farmer and author of "Forever Green: The History and Hope of the American Forest." Placements included the popular television show "Living it Up! With Ali said Jack," which is syndicated to more than 155 affiliates across the country, and the radio show "Murray in the Morning," which is syndicated to 125 affiliates of the Sporting News Network. Chuck's participation was secured with the support of the American Forest Foundation (AFF).

For the main event, local school children participated in a tour of the Central Park forest led by WPN partners Moore and Leavell, as well as New York City Park Rangers and city officials. In addition to local media, a photographer and videographer shot the tour and supplied photographs and footage via satellite to national media outlets.

For more information, visit www.beconstructive.com, email General@woodisgood.org or call 866-ASK-WOOD (866) 275-9663.

Source: *Forest Products Equipment*, May 2004

CONTROLLING HUMIDITY HELPS INCREASE THE BOTTOM LINE

By Pierre A. Husson

Furniture manufacturers, cabinetmakers and other manufacturers of wood-based products throughout the United States routinely face manufacturing and air quality problems caused by dry air during the "Heating Season." Manufacturing problems include warping, shrinkage and other dimensional problems with painting, finishing and gluing; and a variety of static electricity-based problems. All can affect product quality, part reject rates, throughput speeds, run times and overtime, which can cut into profits.

Air quality issues commonly related to dry air are mostly health-related and include dust and respiratory problems, colds, flu, allergies and dermatitis. Each of these translates into lost work time and sick days. Under some circumstances the combination of dust and static electricity can also lead to the potential for fires and explosions.

If you carefully investigate manufacturing and employee health problems you had last heating season, you will probably find that reducing these problems is easier than you think. The solution is not usually expensive. The return on investment is often faster than two years and the solutions are usually permanent.

The Nature of Wood – Maintaining proper relative humidity (RH) throughout the entire cycle of transportation, storage, manufacturing, finishing and finished goods storage will have a substantial impact on the moisture content of the wood you use in your manufacturing and finishing operations.

Most woodworking begins with kiln-dried lumber containing 6% to 11% moisture content. Wood is hydroscopic in nature, readily absorbing and releasing moisture, depending on humidity levels. Wood that is stored and worked at humidity levels that ensure stable moisture content usually stays dimensionally stable and should give you relatively few manufacturing problems. However, retaining 11% moisture content in kiln-dried wood requires an RH level of 55% to 60%.

When air is heated, humidity levels often drop to as little as 10% RH or less. RH levels under 40% reduce moisture content in wood and lead to changes in wood dimensions, including shrinking or swelling, cupping or warping, and checking or splitting. Once the damage is done, it is usually impossible to correct it. Machine stops and reduced machine speeds, problems with settings and production quality are likely results. This leads to predictable drops in production efficiency, increased machine and tool wear and tear, and a higher number of part rejects.

Dry Air Problems – Ideal humidity for both woodworking productivity and employee health is 40% to 60% RH, at a temperature of 68F to 72F. As air is heated, humidity drops. Water must be added to the air for humidity to stay at desirable levels. For instance, maintaining 50% RH at 70F requires having four times as much water in the air as at 32F.

Since many problems are seasonal rather than year-round, their causes are often misdiagnosed. The blame is often put on wood quality, glues, paints, finishes or machinery problems when dry air is the real culprit.

Static electricity problems occur when dry air causes surfaces to become charged with static electricity. It causes a variety of problems including dust fires and static explosions. In some cases, static electricity can also affect the way paints and finishes adhere to wood.

Dimensional changes can affect all aspects of a wood's size. Dried-out wood blanks or parts can shrink, cup or warp, check and split causing a host of problems when the wood's shape or size no longer fits proper dimensions for planing, shaping or assembly.

Gluing and laminating issues are common. Glues often do not cure as completely and uniformly in dry conditions. Ill-fitting pieces also are frequently subject to gluing problems. Dry air can often lead to glue joints separating or veneers popping off the base wood as dimensions change or pieces twist or "pop."

Industrial Air Quality (IAQ) – Years ago, woodworking managers did not worry much about on-the-job air quality. Indoor RH was considered almost entirely a production issue. More recently, however, research into IAQ has shown a direct link between the physical and psychological well-being of employees and the environments in which they work.

Dry air and the dust generated in manufacturing can cause a host of problems for people, including safety issues. Research shows workers can suffer from far higher incidences of colds, flu, viruses, respiratory problems and allergies, as well as headaches, dry skin problems and general lethargy, as well as shocks from static electricity discharges.

Maintaining proper in-plant humidity will provide a healthier work environment for everyone, minimizing respiratory problems and allergies. For instance, airborne dust is greatly reduced by controlling humidity. Relatively speaking, an RH of 40% to 60% is the best range for minimizing bacteria, fungi and viruses. The incidence of respiratory infections, allergic rhinitis and asthma will be lowest with RH in that range. In most cases, proper humidity levels will reduce sick days and increase productivity.

In addition, with a little planning, humidification systems can also be part of your evaporative cooling system in warm, dry climates.

A Simple Solution: Humidity Control – All of the aforementioned problems can be avoided or mitigated by maintaining humidity levels at 40% to 60% RH in your office, warehouse, and manufacturing and finishing departments.

Manufacturers have developed a wide array of technologies and products aimed at resolving humidity problems. Each type converts water into droplets, which are evaporated into the plant's air.

In general, the smaller the particles, the faster and more efficiently they increase RH. Virtually any one of the leading technologies can provide adequate humidification, but all methods are not created equal for every situation. Each method has its strengths and weaknesses in terms of cost, efficiency and effectiveness based on individual circumstances.

In each instance it is important to use clean, soft water in your system. Depending on water quality in your area, it may be necessary to consider use of conditioned, reverse osmosis or demineralized water.

Steam systems produce very fine droplets of 0.3 to 1.0 microns, which evaporate quickly and effectively, but steam systems also produce heat, something that most plants don't welcome.

Most new steam systems use electricity to heat the water. Because electricity is a high-cost source of heat, electric steam humidification usually involves the highest energy costs. Maintenance costs to prevent build-up of corrosive residues on heating elements can also run high.

Centrifugal systems use centrifugal force to atomize water. Units have low installed costs and relatively low operating costs. However, this technology creates larger droplets, which do not evaporate as efficiently as smaller ones. This can lead to excessive condensation problems and wetness. Air quality and health concerns have been raised over the use of the open water baths used in centrifugal systems because they may promote bacteria growth.

Ultrasonic humidifiers use high-frequency electricity to break droplets away from the surface of a shallow water bath. Ultrasonic systems are more energy-efficient than steam or centrifugal humidifiers. They share some of the same basic health issues as centrifugal systems.

Compressed air systems use high velocity air to convert water from a nozzle into fine droplets. Since no heat is involved, energy costs are lower, as are maintenance costs. Compressed air systems can be a drag on compressed air capacity, reducing the amount available to run production equipment or requiring plants to increase their compressor capacity.

High-pressure humidifiers use a high-pressure electric pump to drive water through a fine nozzle at pressures of 900 to 2,000 psi, creating a fine mist of "fog" of droplets averaging about 10 to 15 microns in diameter. Since no heat is required, energy costs are reduced.

The biggest selling points for high-pressure humidification systems are simple installation, low maintenance costs and low operating costs due to energy efficiency.

The greatest shortcoming of high-pressure systems is that the fog they create requires a longer distance to evaporate than some of the other humidification methods previously described. This can be overcome by using a system with a built-in fan. Units with fans distribute moisture with greater uniformity throughout the area. A built-in fan also allows high-pressure systems to work effectively in spaces with ceiling heights as low at 8 feet, without any drain water.

Pierre A. Husson is president of Husson Inc. of Sturtevant, WI, exclusive U.S. sales, engineering and service arm of ML System. He can be reached at (262) 884-4669.

Source: *Wood & Wood Products*, April 2004

MOISTURE METERS – The "WHYS" and "HOWS" of establishing the TURE MC of wood.

By Gene Wengert

Moisture Content Basics – It is common to find that the living tree will have 40% water and 60% wood by weight. (Some trees have less water and some have substantially morel.) This water is the lifeblood of the tree, conducting nutrient-rich water from the soil to the leaves through the sapwood of the tree and then back again toward the roots in the inner bark.

The amount of water in wood is called its moisture content (MC) and is almost always expressed as a percentage. An engineer not used to dealing with wood and people involved in wood pulp, wood chips and wood energy, would quickly state that the moisture in a living tree (also called the green MC) is 40% MC, meaning that by weight, the living tree is 40% water and 60% wood.

However, for anyone working with lumber, percent moisture content is (and has been for well over 100 years) calculated in a different manner. Lumber people will state that freshly sawn lumber from the green tree (as mentioned above) has 67% MC. That is because they compare the 40% water weight to the 60% value that is the dry weight of wood (also called oven-dry weight or bone-dry weight). So, (40/60) is 2/3 or 67%.

Mathematically, for lumber, % MC = [(weight of a piece of wood / oven-dry weight) – 1.00] x 100.

As a quick example, assume that a small piece of wood weighs 150 grams. When the wood is oven-dried to 0% MC, it weighs 125 grams. Then, % MC =

[150/125) – 1] x 100 = [1.2-1] x 100 = 20% MC.

The oven-drying method actually has some strict requirements, including one that the wood be dried at approximately 215 degrees F and be dried until no further weight loss occurs. Accurate weighing is also required – at last to 0.1 grams. For reference, a $1 bill weighs 1 gram.

Why do we need to measure MC? The in-use MC of wood varies with the relative humidity (RH) to which it is exposed. Wood exposed outside in most of North America, but protected from the rain, will be exposed to 65% RH. Check with your local weather experts at a nearby airport for the RH value in your area. Except for coastal areas or desert climates, 65% RH is a good value throughout the year or almost all people. Exposing wood to 65% RH results in 12% MC in the wood.

Wood sued inside a home or office in most of North America will be exposed to 50% RH in the summer time and 30% RH in the winter time. These result in 9% to 6% MC within the wood. In fact, we call these conditions 9% EMC to 6% EMC, where the "E" stands for equilibrium.

Many wood properties change when the MC changes. Of greatest concern to many people who work with wood products is the shrinkage that occurs when wood loses MC and the swelling that occurs with increases. Another concern is the amount of warp that can occur when wood dries from its green MC to its in-use MC value.

From a practical point of view, if the MC of wood is within one or two percent of the in-use DMC, the amount of shrinkage or swelling in-use will be well under ½%…almost negligible. So, this is the objective of drying and storage of lumber…to get the MC within 2% of the expected in-use EMC. In other words, the in-use EMC then establishes the ideal final MC for lumber drying. For hardwood lumber, perfect kiln drying will typically dry all the pieces to 6% to 7% MC. For softwood, because the wood is more brittle at lower MCs, the ideal final MC is 9% to 10%; the shrinkage that may occur in-use going from 10% MC to 7% MC is so small that it is usually not a problem with softwoods.

Measuring MC – As stated, the oven-drying technique can be used to accurately establish the true MC of wood. But the test is destructive; the oven-dried test piece cannot be used for much else except firewood. The test also typically requires 24 hours. Being realistic, it would be impossible to check the MC of every piece of lumber in a kiln load or every piece being used by a manufacturer using the oven-drying test.

So, how can the MC be checked? The answer is "Use an electronic moisture meter!"

There are two types of moisture meters used with lumber. One uses pins or needles that are inserted into the piece of wood being tested; the other does not have pins but has a plate that must contact the wood.

Pin Meters – With the pin meter, the electrical resistance between the pins is measured. The resistance value is then converted into an MC estimated value. The theory is that the resistance in wood is affected primarily by the amount of water in the wood. However, each species has a slightly different inherent resistance, so the species must be known and adjustments made for it. (Traditionally, American-made meters have their calibration based on Douglas-fir; non-American meters have used many different standards.) Further, temperature also has an effect; for every 20 degrees F warmer than room temperature, 1% MC is subtracted from the reading; and for every degrees 20 F cooler, 1% MC is added. I did a test on several hundred pieces of kiln-dried lumber at room temperature of various species using two common USA meters and the results were within ½% MC (in most cases) of the oven-dry MC that I subsequently measured.

If the pins used are insulated along their length, except for the tip, then the MC reading will be the MC in the vicinity of the tip. IT is possible with this pin meter, therefore, to obtain the MC variation at different depths.

The practical range for these meters is 6.5% MC to 25% MC. Some meters may provide MC values outside this range, but the reliability of such readings is poor. This unreliability is due to the extremely high resistance at low MCs and the fact that resistance changes very little as the MC changes above 25% MC.

Perhaps the greatest concerns with using these meters are the time it takes to drive the needles into the wood and the two small holes that the pins leave. Further, the MC measured is only the MC in the vicinity of the pins, which leaves most of the piece unmeasured.

Pin-less Meters – With the pin-less meter, a dielectric factor in the wood is measured and the results are converted to an estimated MC value. Although moisture is the greatest factor influencing the value of the dielectric coefficient in wood, the density of wood is also important. Even with the same species, if there is a density variation within the wood, there will be a similar variation in the indicated MC even though the true MC does not vary.

The main advantage of the pin-less meters is their speed (readings are almost instantaneous); every piece in a load can be measured for MC quickly. These meters can scan an entire piece if the probe/meter is moved across the lumber's surface, and the readings are not significantly influenced by temperature.

Gradient readings cannot be taken. The meter responds more heavily to the MC on the surface closest to the meter. Perhaps the greatest concern when using this meter is the density issue. Therefore, whenever high MC readings are seen, it would be prudent to double check the readings with a pin-type meter to assure that the MC is really high.

In tests on hundreds of kiln dried lumber samples at room temperature, the MC readings were typically within ¾% MC.

The practical range for these meters is 4.5% MC to 25% MC. Some meters may provide MC values outside this range, but the reliability of such readings is poor.

Which meter is Best?

Both types of meters have several strong features and several limitations. The best meter is actually both of them sued together, as the weakness of one is a strong point of the other. I like the pin-less for its ability to scan large areas and many pieces quickly and the lack of temperature sensitivity. I like the pin meter for its gradient ability and small species effect.

When selling lumber, the best meter is the same one that your customer will be using to check the MC of the incoming lumber. If buying lumber, the best meter is one that your supplier is using. For this reason, avoid purchasing a meter that is not commonly used in the wood industry. In fact, specifying the moisture meter to be used on purchased orders is a great idea.

In all cases, the manufacturers instructions must be followed if accurate readings will be obtained. Several key items are mentioned here, but check the manual for details. Always use fresh batteries. (I remember one legal case where a person testified that they used the meter several times a day, but on cross examination, the person did not know what size batteries were used, where the spare batteries were kept, and how to install them. I doubt that he actually used the meter at all.) Some pin meters require the

pin to run along the grain; others, across the grain. Most pin meters suggest that the reading be taken immediately after the reading button is pushed. Pin-less meters are designed for certain thickness material and for wood that has an air gap on the other side. Use a calibration plate for the pinless to assure the meter is in calibration; use a resistance for pin meters.

Specifying MC When Buying and Selling – If MC is an important criteria, always specify the brand of meter, the type of probe, the depth of penetration of the needles, number of readings, species correction, and similar issues. This extra specification on a purchase order will avoid any conflict between buyer and seller. The truth is that the MC values can vary slightly depending on the user's techniques, the meter type and the meter manufacturer.

Source: *Sawmill & Woodlot*, May/June 2004.

Coming Events

AUGUST 16-19, 2004 – The 27th Annual Kiln Drying Short Course will be held at the University of Minnesota, St. Paul Campus. The University of Minnesota's Department of Wood and Paper Science sponsors the course in cooperation with the University Wisconsin-Madison's Department of Forest Ecology and Management.

The course is designed to provide basic training for dry kiln operators and supervisors, but anyone desiring to learn more about kiln construction, kiln operation and wood-moisture relations is welcome and encouraged to attend. No previous drying experience or training is necessary.

For further information contact: Harlan Petersen, Dept. of Wood and Paper Science, University of Minnesota, 2004 Folwell Ave., St. Paul, MN 55108, phone (612) 624-3407, Fax (612) 625-6286, E-mail: harlan@umn.edu, Website: www.cnr.umn.edu/WPS/exten/kdsc.

FOR SALE

Lumber

RECLAIMED RED PINE from a tobacco warehouse built in 1873. Excellent condition never wet very little nails. 10 – 10x14x39'; 9 – 10x14x34.5'; 10 – 10x14x9.5'; 10 – 10x14x9'; 10 – 10x14x6.5'; 10 – 10x14-5.5'; 375 – 3x12x14'; 390 – 3x12x16.5'; 1500_ board ft of 3x12 odd lengths between 5'-13'. Angled up-right supports 8-10' 26'8;, 36 – 2x8x16.5; 5 – Roof trusses 39' spread 10x8; 5 – Roof trusses 34.5' spread 8x8 some w/breaks. Contact Sean Crull R & K and Sons Construction, 7030 Tolles Road, Evansville, 53536.

6/4 low grade hardwood lumber for stake manufacturing… 4, 6, & 8" widths. - Call Bob at 610.621.2893, ramco@juno.com

Forest Products

CEDAR LUMBER AND CANTS, paneling, fencing 4x8x8, 4x4x8 and 6x6x8 or cut in the dimensions you need. Excellent cedar and great price. Contact Billy Imhof, 5859 Cingmars Road, Littlefork, MN 56653, phone (218) 278-4417.

MENOMINEE TRIBAL ENTERPRISE has excess white pine seedlings for sale. Double flush (2 growing seasons) containerized white pine. Seed collected from the Menominee Reservation. Grown at Hills Nursery – Thunder Bay Ontario. 100% plantable – sorted and culled. 10,000 available – first-come-first-serve. In refrigeration now. $125 per 1000. Contact Sue Beilfuss at (715) 799-3896, Ext. 2260 or reply to Michael Schuessler at (715) 799-3896, Ext. 2262, Fax (715) 799-4323.

Equipment

Portable Sawmills by Hud-Son Forest Equipment, Starting at $2,295-Oscar 18" with up to an 18" Log diameter capacity, tow package available. Make your own lumber with one of 7 versitile models to fit your needs. Plus get a variety of forest related equipment: VALBY CHIPPERS, FARMI SKIDDING WINCHES, grapples, rotators, log loaders, forest trailers, firewood processors and conveyors. Order a free catalog and visit us at www.hud-son.com , Visit our dealer in Wisconsin, 1-800-515-4328 - Howard Johnson Sales, Ogdensburg, WI

CUSTOM YF-30 TURBO SUCK dust collector 2-25 HP motors; Brevetti Pneumatic frame nailer (1999) Model AUT 2012, Brevetti Miter Saw (1999) (Double) Model C16; 1 Titan Air Make-up unit (1990) 25,000 CFM, gas, 15 hp, 440; 1 King National air make-up unit (1985) 17,000 CFM, gas, 10 hp. Contact Ashland Area Dev. Corp., 422 3rd St., West, Ashland, WI 54806, phone (715) 682-8344.

WOOD SHAVING MILL – Produce poultry bedding litter with a Jackson Wood Shaving Mill. We do complete plant layouts. Utilize low-grade logs and slabs to manufacture shavings. Contact Jackson Lumber Harvester Co., Inc., 830 N State Rd 37, Mondovi, WI 54755, phone (715) 926-3816, Fax (715) 926-4545, Email: info@jacksonlbrharvester.com, Website www.jacksonlbrharvester.com.

Prentice Model 150 Stationery loader w/5th Wheel; Rodgers Un-nailer w/10" blades; Rip-Jac over & under pallet dismantler; Waechter band resaw; Williams C-32 NO-Nife hog; Morbark Model 640 debarker; Fastline log merchandiser; Bronco pallet stackers; Lauderdale Hamilton Super Chop Pop up Trimmer; Newman chamfering machine Cornell double arbor resaw with cut up system; Cornell Remote Trim Saw; Cornell Cant Sizer; Pendu Diesel Powered M5000 Gangsaw w/Log Cabin tooling; Pendu Diesel powered A5000 double arbor resaw system; Pendu A4000 w/cutoff; Brewer gang saws; Wilson 4 strand unscrambler w/Corley package deck; Woodpower Grinder Mod T-60; Morbark Waste Recycler; Hempstead low speed whole pallet grinder; Keystone Stake pointers, manual & automatic; Call Bob 610.621.2893, ramco@juno.com.

LUMBER PLANTERS FOR SALE – Rebuilt 1978, 36" Oliver Straitoplane with helical carbide heads, 60 hp top-head and 40 HP bottom-head, very nice machine for $29,000; Rebuilt 1964, 36" Oliver Straitoplane with straight knife heads, 30 HP top-head and 15 HP bottom-head – a great planer for $19,000. Located in Grand Rapids, MI. Call Gary at (616) 340-9028.

20-INCH JET PLANER 220V. 3HP cast iron. Excellent condition, $1,200 or best offer. Contact Chuck, 1344 Elo Road Pickett, WI 54964, phone (920) 589-4800.

BARK PROCESSING PLANT – Conveyor & hopper infeed; First big roller screen; Patz chain conveyor under screen; Patz inclined chain conveyor; Second roller screen with conveyor transfer; 40' Patz inclined chain conveyor; Nugget conveyor; all required electric motors, starters, switches, wiring, etc. ALSO, Cornell – Blowers, edgers, trimmers,

notchers, slabsaws, log cleaners, unscrambler, decks; Valby – wood chippers; Farmi-skidding winches (in stock); Hitachi – power tools and chains; Patz-conveyors & belts; Lacey Harmer – laser lights; Danco – Rip saws; Webster – vibrating conveyors; Jonsered – chainsaws; Dixon – sawmills, edgers, conveyors, log turners, hydra-dogs, pallet notchers, debarkers, slab edgers, trimsaws, decks, rollcases, small hydraulic loaders & trailers, trailers with loaders for 4-wheelers; Safe-T-Shelters – storm shelters; over 100 used electric motors & electrical equipment; used sawmill machinery. Contact Rusch Equipment Sales, 400 Rusch Rd, Antigo, WI 54409, phone (715) 627-4361, Fax (715) 627-4375.

SLIGHTLY USED FAS TRAC Model #307 left-hand band sawblade sharpeners - $4,500. Shipping charges additional, for immediate shipment. Sharpens 2 ½" to 7 wide bands – for blades 20 ft. length and under. ALSO, used inserted tooth saw blades. Also, authorized dealer for: Simonds, Pacific/hoe, IKS, Piper, Euro, Corley, Helle, Hanchett, Cornell, Meadows/Miner Edger, Frickco, Oleson, etc. Contact Harry R. Schell, Sawmill Sales & Supplies, Inc., 601 W. Park St., Blue River, WI 53518, phone (608) 537-2987.

Services

OWN OR MANAGE WOODLANDS? You need Wisconsin Tiger Software! Contact The Buckridge, 530 Glendale Ave., Oshkosh, WI 54901, phone (920) 231-8627.

WE MANUFACTURE WOOD items to customers specification, such as dowels, plugs, wedges, blocks, handles, knobs, legs, mouldings, balls, bases, rollers, spools, and shaping. Visit our newly created web site at www.americanwoodworkingco.com. Contact American Wood Working Co., Inc., PO Box 335/263 Church St., Montello, WI 53949, phone (608) 297-2131, Fax (608) 297-7124.

DIXON-RUSCH CO., LLC, Antigo, WI is the manufacturer of the Dixon-line of Sawmill & logging equipment and we manufacture three different sizes of circular sawmills, two sizes of edgers. Our mills and edgers are made both stationary & portable and we also manufacture: log turners, belt & chain conveyors, rollcases, log turners, hydra-dogs, pallet notchers, slab edgers, debarkers, multiple saw trimmers, custom-built decks, small & medium size hydraulic loaders, trailers. We are now manufacturing a deer loader (which every deer hunter should have). Rusch Equipment Sales is our local dealer, but we are seeking dealer in other areas. Contact Dixon-Rusch Co., LLC, 400 Rusch Rd., Antigo, WI 54409, phone (715) 627-4361.

CIRCULAR, BAND & CARBIDE saw blade repair. Contact Harry R. Schell, Inc., Harry R. Schell Sawmill Sales & Suppliers, Inc., 601 W. Park St., Blue River, WI 53518, phone (608) 537-2987, Fax (608) 537-2032. Customer Order Line: (800) 462-5807.

WANTED TO BUY

Equipment

TRACTOR SUITABLE FOR TREE farm operation. Woods's mower, PTO, front bucket are desirable features. Must be running and in good shape. Also, looking for gently used wood splitter. Contact Akin Akrs Tree Farm, 3200 N. 95th St., Milwaukee, WI 53222, phone (414) 873-8092.

A DRIVE BELT for a 10-inch powercraft Montgomery Wards table-top bench saw. Contact Dane Richter, School of Forestry, Michigan Tech., Houghton, MI 49931, phone (906) 487-2149, Email: (dlrichte@mtu.edu).

LOG CABIN TOOLING FOR Pendusaw, late model pallet manufacturing, wooden stake, & shavings bagging equipment, call for price. Call Bob 610.621.2893, ramco@juno.com

4 sided belt driven planer, 2X10 size at least , Don 715-374-2432.

- -

If you want to list items, fill in the form below:

FOR SALE		WANTED TO BUY		SERVICES		EMPLOYMENT			
FOREST PRODUCTS	☐	FOREST PRODUCTS	☐	FOR SALE	☐	AVAILABLE	☐	REMOVE FROM	
EQUIPMENT	☐	EQUIPMENT	☐	WANTED	☐	WANTED	☐	MAILING LIST	☐

____

____

____

____

NAME --- DATE ---

ADDRESS---COUNTY --

CITY -- ZIP CODE ----------------------------------PHONE AC (------) ---------------------------------------

The Wisconsin Department of Natural Resources reserves the right to edit all items included and accepts no responsibility for the accuracy of description or for the commercial integrity of the persons or firms making offers in this Bulletin.

If you wish to use the facilities of the Bulletin, forward a letter, post card or form on page 11 with detailed description of your "wanted" or "for sale" items. All forest products (stumpage, logs, pulpwood, posts, poles, trees and lumber, etc.) and services (custom sawing, custom kiln drying and tree planting, etc.) may be listed. Please be sure your full name, address (including zip code), telephone number accompany your listing, there is no cost for listing any items. If you want items repeated in the next issue, send in a written request. If you have comments about the Bulletin or have suggestions on its content, write to: Forest Products Specialist, 3911 Fish Hatchery Road, Fitchburg, WI 53711, phone (608) 231-9333 FAX (608) 275-3338.

DEADLINE FOR ITEMS TO BE LISTED IS THE 20TH OF: FEBUARY, APRIL, JUNE, AUGUST, OCTOBER, and DECEMBER.

Printed on recycled paper

WISCONSIN WOOD
MARKETING BULLETIN
WISCONSIN DEPT. OF NATURAL RESOURCES

Presorted Standard
U.S. Postage
Paid
Madison, WI
Permit 906

Department of Natural Resources
Forest Products Specialist
3911 Fish Hatchery Road, Route 4
Madison, WI 53711

ADDRESS